

# Ontario Department of Education

REGISTRAR'S VAULT  
OFFICIAL DOCUMENT

NUMBER \_\_\_\_\_

SECTION \_\_\_\_\_ SHELF \_\_\_\_\_

MUST BE RETURNED TO  
ROOM N — 224



BULLETIN NO. 3

1913

## Agricultural Education

### Suggestions and Helps for Teaching Agriculture and Carrying on School Gardening

- I. The Teaching of Agriculture not a Fad.
- II. Aims and Plans for School Gardening.
- III. Some Things to Do.
- IV. Some Things NOT to Do.
- V. Practical Helps from the Schools' Division, Experimental Union:
  - (1) Free Planting Material for Experiments, Demonstrations, and Beautifying School Grounds.
  - (2) Tree Seedlings from Provincial Forest Nursery.
  - (3) Arrangements for Purchasing Vines and Bulbs.
  - (4) Free Planting Material for Children's Progress Clubs.



Experimental Plots at S.S. No. 10, Southwold Township, Elgin County, 1912  
Miss Ethel M. Leake, Teacher.

PRINTED BY ORDER OF THE LEGISLATIVE ASSEMBLY OF ONTARIO

TORONTO:

Printed and Published by L. K. CAMERON, Printer to the King's Most Excellent Majesty.

1913



## THE COUNTRY BOY'S CREED

---

"I believe that the country which God made is more beautiful than the city which man made; that life out-of-doors and in touch with the earth is the natural life of man. I believe that work is work wherever I find it, but that work with Nature is more inspiring than work with the most intricate machinery. I believe that the dignity of labor depends not on what you do, but on how you do it; that opportunity comes to a boy on the farm as often as to a boy in the city; that life is larger and freer and happier on the farm than in the town; that my success depends not upon my location, but upon myself—not upon my dreams but upon what I actually do, not upon luck but upon pluck. I believe in working when you work and playing when you play, and in giving and demanding a square deal in every act of life."

EDWIN OSGOOD GROVER.



## THE TEACHING OF AGRICULTURE NOT A FAD

The teaching of agriculture in the rural schools of Ontario is not a fad. It is not a new thing. It is as old as our educational system. It is not a needless thing. At the very beginning it was planned to give the subject a place amongst the school studies as a valuable part of the training of our citizenship. At no time since has effort in this direction ceased. After sixty-five years of struggle, marked by advances and retreats, there are evidences that the field will be won before long. With new conditions and new necessities arising in rural life, and new methods coming to be in teaching, the subject of agriculture will become an acceptable and a necessary part of the education of children. It will not be considered a *fad*; it will be considered a *necessity*.

The following extracts taken from books dealing with rural problems, the agricultural press and the regulations of the Department of Education will make more clear the needs and the aims of the work:—

God's partner in making the New Earth! That is where I start. That is a boy in the country.—*Conservation of Life in Rural Districts*, Dr. Jas. W. Robertson.

What I have suggested does not involve any upsetting or over-turning of the present system of education, but rather an adaptation to agriculture as far as possible of subjects now upon the curriculum. Instruction in agriculture in our schools may be very limited, but if nothing more be done than to start our rural pupils thinking, to give them an impetus or a turn in the right direction, to develop in them a taste for agricultural study and investigation, to arouse in them a desire to know more and to read more about agricultural affairs, and especially to increase in them a respect for their work and a pride in their calling, then the most important end of their education will have been attained.—*The Teaching of Agriculture in the Public Schools*, 1892.—C. C. James.

"The teaching of agriculture is not for the making of farmers, but men and women. It must be more than a mere school of rural money-making. The teaching of agriculture needed in the schools is for the purpose of training in country life. The country school must make the country worth while. It will teach agriculture as a basis of an ideal life rather than as a quick way of profits." Wilson.—*The Challenge of the Country*, Fiske.

"I do not doubt that all elementary educational work for country conditions is yet very crude and fails adequately to reach the mark. On the other hand I am convinced that we are learning how. In the meantime it seems to me that it is your part as a teacher to endeavor to put the country children, as much as possible, directly in touch with their environment in order that they may understand it and appreciate it. I am sure that not all the compensation of farming are in the shining dollars of which you speak. Some of the compensation comes in a sympathetic appreciation of the surroundings and the advantages that a farmer has and may have; and the country man cannot be really successful until he arrives at this appreciation."—*The Nature Study Idea*, L. H. Bailey.

"Elementary Agriculture is the name given to this subject but a better name would be the teaching of the science of country life. . . . All this is done not for the making of farmers, but men and citizens. Experience alone will make one successful in farming or in any other occupation that at once requires art and science, but the teaching of elementary agriculture is carried on in order that the citizens-in-the-making, when they are thrown on their own resources, may gain their efficiency with a minimum of loss. To say that the present system is imperfect is to say that it is the product of human thought. At the same time scores of schools and thousands of pupils are trying this work and with but a very few exceptions, the results warrant the time and energy expended upon it."—Editorial, *Weekly Globe*, Toronto, Nov. 27, 1912.



"The Department of Education for the Province of Ontario aims to have instruction in Elementary Agriculture and Horticulture given in the rural and village schools for the following reasons: (1) To bring the life and interests of the school more closely into touch with the home life of the pupils and the employments in which they will be engaged in after they leave school; (2) To stimulate interest and to impart useful information in agricultural subjects and thus offset to some extent the tendency to leave the farm for the city;

. . . (7) To promote the qualities that make for good citizenship, such as the responsibility of ownership, respect for public property, consideration for the rights of others and the principle of co-operation in seeking the common good.

"The work will be carried into effect, through the encouragement of school gardens, home gardening schemes, experimental and observation plots on the school grounds, children's progress clubs, and other practical measures."—*Regulations, Department of Education, Circular 13, 1912.*

## II.

### AIMS AND PLANS FOR SCHOOL GARDENING

**The Meaning of School Gardening.**—The word "school" in the expression "School Gardening" marks an important and fundamental distinction; it indicates that the chief purpose in bringing gardening into school work is *education* for the child. This should not be lost sight of. A garden at school may be quite a different thing from a school garden. It is not the location at school that makes it a school garden. A child's garden at home may be a real school garden and of the very best kind. A plant in a flower pot may be a child's school garden. Caring for an apple tree may be school gardening. An experiment with field crops carried out by a high school pupil on his father's farm is school gardening. It is not location, nor size, nor crop, nor the age of the pupil that determines whether a garden is a school garden; it is the *purpose*. Primarily the aim is not to grow grains, flowers, or vegetables. The purpose is higher. It is to furnish incentives and provide a field for work that will be rich educationally in recreative, instructional and character-forming experiences.

**The Form of the School Garden.**—By many, a proper school garden is considered to be a well arranged series of little plots with a more or less uniform assortment of flowers and vegetables grown by the pupils in the different classes. Such an arrangement undoubtedly may provide a good school garden and especially for the first year's effort.

Against such a plan, however, there are objections. It is not like an ordinary garden that may be found at the homes. It is not like a garden which the pupil will plan for himself when he grows up. It is difficult to lay out and manage. There is much waste of ground in paths and these require a great deal of attention. It cannot be carried out unless there is a larger or smaller open space in one plot. It does not appeal to practical farmers as being sensible. It is too narrow in its conception.

The school garden interests are as manifold as the plant growing interests of the home. It may very properly include all the varied interests that pertain to the ordinary gardening or farming at the children's homes. Nothing that is done at a home to make the garden more productive or more beautiful, or more convenient, nothing that is done in the fields to grow good crops, and nothing that is done to make the home or the home grounds more attractive is apart from school gardening.





School Garden at S. S. 12 Markham Tp. York Co. Miss M. J. Klinck, Teacher

Several experiments were successfully carried out in this garden last Summer.

**Suggestions for a School Gardening Plan.**—As explained elsewhere the work with vegetables and grains might be carried out as a model home garden and “experimental farm.” The flowers may be grown as they likely are at home, in borders or beds at the front or sides of the house and along the fences. The beautifying and keeping neat of the school grounds should not be lost sight of as an important part of school gardening. The girls in one class might take charge of the lawn and flower borders on one side of the sidewalk; the boys of the same class might look after the other side. A group of girls could carry on their flower gardening along the side fence and make what otherwise might be unsightly, attractive and even beautiful. The school garden will not be limited by the front fence. A committee of the boys might undertake to make the rough, neglected roadside in front of the fence take on the appearance of a boulevard; if in a locality where there are no animals running at large, some of the flower gardening might be carried out on the roadside. The repairing of fences, the laying down of walks, the making and care of window boxes and hanging baskets; the building of a rockery or of a trellis; the erection of a summer house or the making of garden seats; the preparation of a croquet lawn or the putting up of a swing—all these may be included in school garden projects.



### III.

## SOMETHING TO DO

### BRIEF SUGGESTIONS FOR TEACHERS OR TRUSTEES

**Take Stock.**—In all successfully managed business concerns stock-taking is a very necessary undertaking; future developments and policies are dependent upon it.

In the school stock-taking, trustees and teachers might make an inventory under the following headings: (a) *The state of efficiency of the whole equipment*; repairs needed, new machinery needed, worn out machinery that should be "scrapped"; (b) *The number and quality of the school's "output"*; the number taking full advantage of the school's services; the number dropping out before attaining the best possible educational equipment that the school can give; the number that the school fails to reach; (c) *The "returns" of the school to the community*; has it helped to develop the best of life for the neighborhood; has it made the neighborhood a better place to live in; has it helped to retain a fair share of the best "blood" of the neighborhood?; (d) *The local support accorded the school*; the interest in education and the work of the school shown by the community at large; has the school and the locality a community of interest?

**Adopt a Policy.**—If stock-taking should show that the educational needs of the community are not being adequately met, consider the case carefully and adopt a new policy. Such a policy should carry with it for a motto, "The best possible school and the best possible education for the children of the people of this neighborhood."

**Keep Informed Regarding the Problems and Needs of Rural Life.**—For the sake of satisfaction in your work, keep in touch with the work of the farm and the problems of farm life by reading the agricultural papers and such books as *The Challenge of the Country*, Fiske; *The Country Life Movement*, Bailey; *Chapters in Rural Progress*, Butterfield; *Report of the Commission on Country Life*, U. S. Government; *Country Life and the Country School*, Carney.

**Aim to Have Your School Attractive and the People Proud of It.**—Every country school in Ontario should be at least as well cared for and as attractive as the average well-to-do home in the neighborhood; a high regard for the school will have with it a high regard for the school's work.

**Make Yourself Thoroughly Acquainted with the Plans of the Education Department.**—During 1912 several circulars, bulletins and charts were sent to every school; look these up and read them. Other publications will be forthcoming; keep them all together for reference. At the back of the School Register suggestions for lessons month by month will be found.

**Use Opportunities of Better Equipping Yourself as a Rural School Teacher.**—If possible arrange to attend at least one session (five weeks) of the Summer School for Teachers at the Ontario Agricultural College, Guelph.



**Do Not Remain Isolated in Your Work.**—Form a local Township Teachers' Association and co-operate in promoting a township "school spirit."

**Arrange to Secure Agricultural Books and Government Bulletins for your School Library.**—It will be well worth while to train pupils to use such publications and to encourage their use in the homes also.

**Use a small part of the wall of your schoolroom for an Agricultural Bulletin Board.**—On this the agricultural charts sent out by the Education Department may be put up from time to time; clippings and pictures from the papers, or nature objects, such as weeds, may be shown thereon also. A piece of burlap or cork linoleum will answer for this; a home-made shelf for bulletins and books might be put alongside and possibly a reading table for farm papers and magazines could be placed near by.

**Secure the Co-operation of your Local Women's Institute.**—In several places last summer the members of this organization supervised the children's care of the garden during the summer holidays, and encouraged the teacher's efforts in many ways.

**Organize a Parents' and Teachers' Association or a School Improvement Society.**—Where these Associations have been formed, the school and the home have been brought into accord and co-operation, much to the advantage of the children and to education at large. This work may be carried out through a special committee of the local Women's Institute. The better decoration of the school and the equipment of the playground may be secured through such organizations.

**Bring everybody together at a School Improvement Bee on Arbor Day, a School Picnic, a School Fair, a School At-Home or a School Concert.**—The school can hardly be used too much as a social centre; through such gatherings a strong community interest may develop around the school—a good thing for the school and a good thing for the community!

**Lend Help in making the School useful to Pupils who have left School.**—Do not forget that the Athletic Association, the Baseball or Football Club, the Literary and Debating Club and the Reading Circle are strong factors for happiness and education.

**Get into touch with your County Agricultural Representative.**—From him you will receive practical help and encouragement; in some cases he will be able to furnish select seed for children's garden work, give assistance in conducting your School Fair, organize your Progress Club or visit the school to address the children on some agricultural topic.

**Join forces with your Local Horticultural Society.**—In many places for a number of years past the Horticultural Societies have carried on work with the schools, distributing seeds, bulbs and plants, holding flower shows at which children exhibited, inspecting pupils' home plots, etc.

**Work in conjunction with your Local Agricultural Society.**—At many exhibitions of our Agricultural Societies the school children's exhibits have become a very strong feature.



## SOMETHING NOT TO DO.

## DON'TS FOR TEACHING AGRICULTURE AND SCHOOL GARDENING.

**Don't think that agriculture in the schools is merely a new Subject;** it is also a new direction, a new method, a new purpose, a new school!

**Don't think that the teaching of agriculture is no concern of yours;** in giving this service to the boys and girls in your school you are performing a distinct service to the State.

**Don't think a rural school teacher's position an inferior one;** there is no work in the whole teaching profession requiring such skill or offering such opportunity for service.

**Don't think that teaching agriculture and school gardening are one and the same thing;** a school garden is simply a *means* to an end, and the end is teaching agriculture.

**Don't commence the work without a purpose;** determine clearly in your own mind *why* you should undertake to teach agriculture; don't start a garden merely for the sake of having a garden.

**Don't commence the work without a plan;** a good workman has a picture of the completed work in his mind before making a beginning.

**Don't commence the work without support;** a teacher's first effort should be to induce his or her community to understand and to want better things for the *community's* school and the *community's* children.

**Don't begin to think about gardening in the spring;** get ready for the spring operations in the fall; get the ground cleaned up, manured and ploughed; with this done the garden "spirit" will be at work all winter.

**Don't remain isolated in your work;** seek to join hands with the teachers in the neighboring schools; organize a township School Improvement or School Garden Association amongst yourselves; hold a Township School Fair, having picnic and sports associated with it.

**Don't commence a garden if leaving at summer holidays;** *unless* there is such a body of support for the work amongst the people at large and the trustees and pupils in particular as to make certain the proper care of the garden in holidays and the continuance of the work under the new teacher.

**Don't attempt too much at the beginning;** be content to test a few features of the work the first year; leave something to be done in subsequent years.

**Don't commence a garden unless it is well protected;** too many reports tell of damages through poor fences and insecure gates.



**Don't expect first-class results from poor ground ;** until the ground is in first-class shape, keep the work along simple lines, growing the hardiest crops. Constant cultivation will do much to better conditions, but generous manuring is necessary, too.

**Don't make the garden merely a school affair ;** make it the "experimental farm" and the "beauty spot" for the whole neighborhood; distribute its products liberally. Why shouldn't the trustees carry out an experiment of their own, possibly on a larger scale than those of the pupils, or why shouldn't the local Farmers' Club demonstrate some valuable experiment, using one of those sent out to farmers by the grown-up branch of the Experimental Union. This would make the school garden a real local Experimental Farm.

**Don't have a garden cared for by hired help ;** make it of such interest to the gardeners that they will neither neglect it in July and August nor permit hired help to care for it. In a teacher's absence a good school garden will be cared for all summer under the developed leadership of some of the pupils, assisted by their parents. The school will be alive all the holidays.

**Don't leave the garden unfinished in the fall ;** this means that it will be tidied up, manured if necessary, and ploughed. It will be treated at least as well as the best farmer in the section treats his fields.

**Don't have the garden exercises vain repetitions ;** develop new ideas and new experiments from year to year; make the work just as progressive for the pupils as arithmetic or any other subject taught in the school; encourage the older pupils and their parents, too, to carry out work of general interest.

**Don't make money prizes and competitions the chief stimuli for the work ;** if rewards are offered, let them be distributed to many and not to a few; furnish prizes in kind, such as bulbs, a fruit tree, a rose bush, a geranium plant, a setting of eggs, a book on gardening or cooking, a subscription to an agricultural paper, a trip to the Agricultural College or a Fall Fair.

**Don't commence the work without patience and perseverance ;** "a school garden needs a careful, constant, faithful, thinking, planning, executing and persevering overseer during its entire period of beginning, growing and harvest. It is easy to create interest enough to start a school garden. To keep this interest and to get satisfactory results require a far greater degree of talent and of applied art."



## The Ontario Agricultural and Experimental Union— Schools' Division.

ONTARIO AGRICULTURAL COLLEGE, GUELPH

In Co-operation with

The Department of Education of Ontario.

---

Committee—S. B. McCREADY, Director ;	H. L. HUTT, School Ground Improvement
J. W. CROW, Fruit Growing ;	A. H. McLENNAN, Vegetable Growing ;
Wm. HUNT, Floriculture ;	C. A. ZAVITZ, Agriculture ;
W. R. GRAHAM, Poultry ;	E. J. ZAVITZ, Forestry ;
	J. A. MacDONALD, School Gardening.

---

### PRACTICAL HELPS FROM THE SCHOOLS' DIVISION OF THE EXPERIMENTAL UNION

The Schools' Division of the Experimental Union was organized in 1909 with the object of furnishing the schools of Ontario with planting material suitable for simple experiments and demonstrations in school gardens or in pupils' home gardens. This work is an adaptation of that which has been carried on since 1879 with farmers; through the distribution of choice seed of promising varieties, much has been done to improve field crops throughout the Province. Each year has shown an increase of interest in the children's side of the work and in 1912 about 250 schools received supplies.

**Work for 1913.**—For 1913 additional offers are made to meet, as far as possible, the varied requirements of schools in different places, or schools taking up different lines of work. It is not intended, however, that schools should restrict their efforts to the lines of work suggested below. Doubtless in many cases other experiments and demonstrations will be of more interest and value locally. In any case the work attempted should *have a purpose* and appeal to the common sense of the neighborhood. These offers are merely made as suggestions and put into practical form especially for the use of schools taking up the work for the first time.

**Nature of material sent out.**—The seed furnished for this work is of the highest quality obtainable. The barley, corn, oats and potatoes are secured from growers who have taken prizes in the Canadian Seed Growers' Association or the Ontario Field Crop Competitions; before sending it out to the schools the grain is carefully cleaned and examined. The vegetable and flower seeds are of the best quality obtainable.

The selection of varieties is based on the findings of the experimental work carried out at Guelph and on the results of the co-operative experiments of farmers throughout the province.

In the case of the field crops the quantity of seed sent is sufficient for a plot one square rod in area; for the vegetable experiments seed for two rods is sent in most cases, and for the work in flowers, seed considered sufficient for an average school is furnished. In case the local arrangements at the school do not permit of plots of these sizes, the seed should be divided proportionally and any surplus made use of in some other way.



From these small quantities of select seed it is not only possible to demonstrate valuable information to a whole neighborhood but to provide also a choice seed which in a very few years may yield sufficient to improve greatly some of the crops of the neighborhood.

In previous years charges were made for flower and vegetable seeds; this year they are furnished free to schools with the object of encouraging the improvement of school grounds and indirectly the introduction of the teaching of agriculture. Supplies such as vines, tulips, daffodils, gladioli and dahlia roots are not furnished free; the charges for these are special prices made to the schools by the importers and growers who furnish them through the *Schools' Division*.

**To prevent Improper Distribution.**—Teachers are asked to help in carrying out this work of seed and plant distribution along right lines. In any offer of something for nothing there is considerable danger of undesirable applications and of harmful waste. The seed is to be paid for by being put to good use. The intention throughout is *educational*; to engage boys and girls in practical and interesting plant-studies in order to secure for them a *better education*. Do not, therefore, ask for material unless it is to be put to the good use as intended. Do not encourage anyone to secure material simply because it is offered free. See that the distribution is restricted pretty closely to pupils' use in connection with the school work. If parents or others desire supplies for their personal use, explain the limitations of the *Schools' Division's* work. This does not prohibit a teacher, however from securing supplies for his or her personal use in association with the children's work. Nor does it prohibit the teacher from getting supplies for older boys and girls, who have recently left school and who may be interested in carrying out some of the suggested experiments. Teachers are asked to keep in mind also that his or her work does not *end* in putting the seed into the pupil's hand; it is at this point that the most valuable part of the teacher's work *begins*.

**General Suggestions for Carrying out the Work.**—In planning the seed distribution for 1913, the possibilities of the school garden as a training ground in co-operation has been kept in mind. To get unselfish service from the individual for the community instead of the more or less selfish work for himself is a worthy object. A well arranged and well executed plan for school gardening may help to offset an undesirable individualism.

It is therefore suggested that the work be arranged, if possible, along the lines of a home garden or a little local "experimental farm" with the competitive side of the work directed to a wholesome rivalry in carrying out the work best for the common advantage of the school and the neighborhood. One of the boys may carry out the demonstration on mangels; another may take the charge of the plot on oats; one of the girls may take charge of the variety test of beets, while another grows perennial flower plants for use at the school and distribution amongst the patrons of the school.

Pupils should be encouraged to exchange their products with one another and to distribute them in other homes of the locality as well. If the local sentiment is not opposed to it, products may be sold and the proceeds used to buy gardening books, vines, etc., or to meet the expenses of the pupils on an educational excursion.



Means should be taken in oral composition and gardening reporting to make each pupil's work and problem known to the other pupils. The people in the section also should be informed of the demonstrations and experiments that are under way at the school.

Do not permit the garden to grow up uncared for; rather pull out all plants and sow down with clover, buckwheat, rape, rye, or some crop that will prevent weeds from growing.

Instruction sheets will be sent out in most cases for the guidance of pupils and teachers, but seed catalogues, bulletins, agricultural papers and books should be brought into use wherever possible.

---

## SUGGESTIONS RE. ORDERING.

1. Read over the suggestions given in the preceding pages before ordering.

2. Please mark each item wanted plainly with an X.

3. Please do not ask for material that cannot be put to good educational use either in the garden at the school or in the pupils' home gardens.

4. Do not delay ordering. Settle your plans for the work and send in orders early and before the middle of April if at all possible. Seed will be sent out in plenty of time for planting. Do not be in too great a hurry to commence work in the garden at the first opening of the spring season.

5. Let the pupils look over the offers made below and choose their experiments themselves after consulting with their friends. Put their names down alongside the choice made. This will save confusion when the seed arrives and stand as a record in the school also of the work carried out.

6. For most of the experiments and demonstrations a printed instruction sheet will be sent with the seed; should additional copies of these be required afterwards for use amongst the pupils, they will be forwarded on request from the teacher.

7. If for any reason material cannot be supplied, notice will be sent in time to allow teachers to make other arrangements for securing seed.

8. If the work cannot be undertaken for good reasons on the school grounds, the pupils may plant the seed in home gardens and in the case of the flower work exchange little plants amongst one another.



# DEMONSTRATIONS AND EXPERIMENTS WITH FIELD CROPS.

**1. Alfalfa Demonstration.**—Seed of *Ontario Variegated Alfalfa* to illustrate Chart No. 1 on Alfalfa, sent out to all Ontario schools in the spring of 1912. One square rod required.

Pupil.....

**2. Experiment on Best Time to Sow Spring Grain.**—Four packets of seed of either O. A. C. No. 21 Barley or of Siberian Oats to illustrate Chart No. 2, sent to all Ontario schools in the spring of 1912. One square rod required.

Pupil.....

**3. Barley Demonstration.**—Seed of *O. A. C. No. 21 Barley*, an improved selection of Mandcheuri barley which has become the leading barley of the Province. One square rod required.

Pupil.....

**4. Oat Demonstration (No. 1).**—Seed of *Siberian Oats* as representing one of the very best standard varieties of white oats. One square rod required.

Pupil.....

**5. Oat Demonstration (No. 2).**—A small packet of seed of *O. A. C. No. 72 Oats*. This is a new variety originating from a single selected plant of the Siberian and promises to attain the same prominence amongst the oat crops as No. 21 Barley has amongst the barley crops. An ounce or two of seed for a few rods is provided.

Pupil.....

**6. Corn Demonstration.**—Four small packets of seed to demonstrate the four common kinds of Indian corn with leading varieties represented in each case, viz.: for Flint Corn, *Salzer's North Dakota* (or *Longfellow* for northern counties); for Dent Corn, *Wisconsin No. 7*; for Sweet Corn, *Golden Bantam*; for Pop Corn, *White*. One square rod required.

Pupil.....



**7. Mangel Demonstration.**—Seed for test of two leading varieties, viz.: *Mammoth Long Red* and *Yellow Leviathan*. One square rod required.

Pupil.....

**8. Potato Demonstration.**—Seed for tests of two leading standard varieties, one early and the other a late potato, viz.: *Early Eureka* for the early potato and *Empire State* for the late potato. One square rod required.

Pupil.....

**9. Demonstration of less known Crops.**—Seed of Millet, Sorghum, Flax, Buckwheat, for demonstrating these less known field crops on small plots. One square rod required.

Pupil.....



Wilfred MacKellar, with his prize corn, at School Fair, Dutton.

S. S. 16, Dunwich Tp., Elgin County



DEMONSTRATIONS AND EXPERIMENTS WITH  
VEGETABLES AND SMALL FRUIT.

10. **Lettuce Demonstration (No. 1).**—Seed for variety test of two different types of lettuce, viz.: *Iceberg*, representing a Head Lettuce, and *Paris White*, representing a Cos Lettuce. Two rows of each.

Pupil.....

11. **Lettuce Experiment (No. 2).**—Seed for an experiment to find out the advantages or disadvantages of growing lettuce thickly, thinning out the plants, transplanting young plants, and applying sodium nitrate. The seed will be of a standard Head Lettuce and sodium nitrate will be sent. Two rows required.

Pupil.....

12. **Onion Demonstration.**—Seed for a variety test of two types of onion: *Yellow Globe Danvers*, representing a yellow onion of globe form, and *Red Wethersfield*, representing a red onion of flat form. Two rows of each.

Pupil.....

13. **Carrot Demonstration.**—Seed for a variety test of two types of carrot: *Chantenay*, representing the half-long, stump-rooted form, and *Danvers*, representing the form known as intermediate. Two rows of each.

Pupil.....

14. **Beet Demonstration.**—Seed for a variety test of two types of beet: *Crosby's Egyptian*, representing the flat form of beet, and *Detroit Red*, representing a round or turnip form of beet. Two rows of each.

Pupil.....

15. **Bean Demonstration.**—Seed for a variety test of two types of bean: *Keeney's Rustless*, representing a *Dwarf Wax Bean*, and *Stringless Greenpod*, representing a *Dwarf Green Bean*. Two rows of each.

Pupil.....

16. **Garden Herb and Parsley Demonstration.**—Seed of *Summer Savory*, *Sage* and *Moss Curled Parsley*. One row of each.

Pupil.....

17. **Introducing New Vegetables.**—(a) Seed of *Swiss Chard*, a comparatively little known and desirable vegetable; (b) seed of *Kohl Rabi*, a little known new vegetable that comes into use early in the season; grown, cooked and flavored somewhat like cabbage. Two rows of each.

Pupil.....

18. **Encouraging Use of Vacant Ground.**—(a) Seed of *Winter Radish* (two kinds, *China Rose* and *Long Black Spanish*) to sow on in July and August in ground from which lettuce, radish and other early crops are removed. Seed for about two rows of each to be distributed to pupils as required. (b) Seed of late cabbage (*Enkhuisen Glory*) to provide plants for transplanting into vacant ground on in the season. The seed may be sown in a garden at different dates, beginning about the end of May. Seed for one row.

Pupil.....



19. Encouraging Asparagus Culture.—Seed of *Argenteuil Asparagus* to grow little plants for distribution in neighborhood. Seed for one row.

Pupil.....

20. Encouraging Small Fruit Culture.—A package of a few dozen cuttings, including one or two one-year plants, of standard varieties of *Black and Red Currants*. These cuttings are from the College garden and are intended for distribution in the school section after being rooted in the school garden.

Pupil.....

FLOWER SEEDS FOR SCHOOL GROUND IMPROVEMENT, ETC.

21. Climbing Plants for covering fences, lattices, out-buildings, etc. (a) *Cobea*, very rapid grower, fine foliage, large flowers; (b) *Climbing Nasturtium*, may be used in window boxes or hanging baskets; (c) *Ornamental Gourds* provide an interesting assortment of oddly shaped gourds.

22. For Background of Garden or along Fence.—Seed of tall, double, fancy *Sunflowers* of mixed sorts.

23. Annuals for Beds and Borders.—(a) Sweet Alyssum, (b) Dwarf Nasturtium, (c) Phlox Drummondii, (d) Shirley Poppies, (e) Aster, (f) Zinnia, (g) Petunia.

24. Introducing Biennials.—(a) Double mixed *Hollyhock*, and (b) *Canterbury Bell* for providing plants for the school and the gardens of the school section. Seed for one row of each.

Pupil.....

25. Introducing Perennials.—(a) Fine mixed single *Sweet William* and (b) *Forget-me-not*, for providing plants for the school and the gardens of the school section. Seed for one row of each.

Pupil.....

26. Distributing Seed between Ontario School Gardens.—Last year packets of seed collected by pupils were sent out amongst the schools; there is a likelihood of similar supplies being sent in again for this year's distribution.



S. S. 8, Beverley Tp., Wentworth Co.

The earth for the flower beds around this school was drawn by the ratepayers at an Arbor Day Bee.



# The Ontario Agricultural and Experimental Union— Schools' Division

ONTARIO AGRICULTURAL COLLEGE, GUELPH

In Co-operation with

The Department of Education of Ontario

---

Committee—S. B. McCREADY, Director ; H. L. HUTT, School Ground Improvement  
J. W. CROW, Fruit Growing ; A. H. McLENNAN, Vegetable Gardening ;  
WM. HUNT, Floriculture ; C. A. ZAVITZ, Agriculture ; E. J. ZAVITZ, Forestry  
W. R. GRAHAM, Poultry ; J. A MacDONALD, School Gardening.

---

## ORDER SHEET FOR PLANTING MATERIAL

SENT TO SCHOOLS FOR THE ENCOURAGEMENT OF

### PRACTICAL WORK IN ELEMENTARY AGRICULTURE AND SCHOOL GARDENING.

Director, Elementary Agricultural Education,  
Ontario Agricultural College,  
Guelph.

Dear Sir:—

Please send me the planting material marked below for use by the pupils in my school:

FIELD CROPS.	VEGETABLES AND SMALL FRUIT.	FLOWERS.
1. Alfalfa.	10. Lettuce (No. 1).	21. Climbing Plants.
2. Spring Grains : Oats or Barley.	11. Lettuce (No. 2).	22. Double Sunflower.
3. Barley.	12. Onions.	23. Annuals for Beds and Borders,
4. Oats (No. 1).	13. Carrots.	23. Biennials.
5. Oats (No. 2).	14. Beet.	25. Perennials.
6. Corn.	15. Beans.	26. Seed from School Gardens,
7. Mangels.	16. Herbs and Parsley.	
8. Potatoes.	17. New Vegetables.	
9. Millet, Sorghum, Etc,	18. For Vacant Ground.	
	19. Asparagus.	
	20. Small Fruits.	



## INFORMATION.

(To be filled in by Teacher.)

School .....	Date of Ordering .....
(Number and local name.)	Teacher .....
Municipality .....	P.O. Address .....
County .....	Express Office .....
Inspector .....	Secretary .....

**Plans for 1913 Work.**—Teacher will please state how it is proposed to carry on the work; whether in school grounds or home gardens; how much ground is to be used; whether the ground was prepared last fall; plans for getting work started in the spring; local support from trustees, Women's Institute, Agricultural Society, etc.

**Previous Work.**—Please state what work along these lines has been carried on in previous years; how such work is favoured in the section?

Will you likely require larger supplies of flower seeds than the amounts indicated in the announcement above?

Is this school registered with the *Director of Elementary Agricultural Education* for teaching agriculture and earning special grants? (Circular 13, reg. 5.)

Are you likely to be teaching in this same school after summer holidays?

Have you arranged or are you arranging for a local Township Rural School Teachers' Club or Association?

May we expect a brief report from you towards the end of the year giving the results of your work as carried out by means of this distribution of seed?



## 2—DISTRIBUTION OF TREE SEEDLINGS FROM THE PROVINCIAL FORESTRY NURSERY.

Through an arrangement made three years ago with Prof. E. J. Zavitz, Director of the Provincial Forestry Nursery at St. Williams in Norfolk County, a number of schools have been supplied each year with collections of young tree seedlings for planting in school gardens.

The arrangement will be continued this year. The same selection will be sent, viz., one dozen White Pine, one dozen Scotch Pine, one dozen Norway Spruce, one dozen White Cedar. The plants are three or four years old and from eight to twelve inches high.

**Aim of the Work.**—The purpose of this distribution is to call attention in a practical way to the Ontario Government's plans for reforesting waste areas of lands unsuitable for profitable agricultural uses, and at the same time to awaken an interest in tree-growing amongst the pupils in our schools. In many parts of Ontario there are larger or smaller areas of apparently useless land that might grow crops of trees profitably. The time has come for individual owners to give the remaining wooded lands better attention. Already the state has gone forward in conserving the timber resources on crown lands.

In these concerns of the individual and the state, the forestry plots in the school garden with the accompanying instruction in the class room, may yield a distinct service.

**Reforestation of Waste Areas near the School.**—Although no school has yet taken advantage of the effort made by the Forestry Department through the Schools' Division of the Experimental Union for the past three years, it is considered to be worth continuing. Any school which desires to undertake a re-forestation proposition on a nearby piece of waste land that may be put under the school's permanent control for this purpose, will be supplied free by the Forestry Department with planting material. Necessarily there must be assurance of permanence and of the usefulness of the work as an educational project.

**Uses to be made of the Trees.**—According to the arrangements the evergreen trees sent out are to be kept for at least one year in the school grounds and used for educational purposes. After that, although it will be better to keep them two or three years, they may be distributed as appears best where they will be well cared for and serve a good purpose. They might be used for setting out on the school grounds as decorative clumps or windbreaks; they might be set out in any waste place in or near the school grounds such as a gully, a gravel knoll, an old gravel pit or a river bank; they might be given to pupils as prizes to be taken home; they might be put out in the school arboretum or a school grove that it may be desirable to establish; they might be donated to the public park, used in the local cemetery or given to the local church.

The trees are not intended for, and teachers should not permit, distribution amongst private individuals, except as such is made through the children who are attending school. Because the trees are received free of any expense, they should not be undervalued. If they could be purchased from nurseries, they would cost about two dollars.



**Suggestions for Carrying on the Work.**—Teachers will find many lines of instruction to centre around this tree-growing work. When the box of little seedlings arrives, there will be a lesson on the difference between White Cedar, Norway Spruce, and Scotch and White Pines; observation on the manner of packing and shipping the plants; instruction on the work of the Forest Nursery at Norfolk County. With the putting of the seedlings into nursery rows in the forestry plot in the school garden (they may be set out immediately into their permanent locations on the river bank, gravel knoll, etc.) there will be practical lessons on the proper care of the little trees, their remarkable root system, the manner and rate of growth, the percentages that survive the first winter. After two or three years, when the trees are well grown and ready for setting out permanently, there will be lessons on planting plans for the school or home grounds as well as practical exercises in transplanting. The work should be put in charge of a committee of pupils who will look after the plants from year to year. Closely connected with the work throughout there will be nature study lessons on the trees and forestry conditions of the locality; estimate of areas in bush or swamp; observation of the trees used for firewood or sawlogs; measurements of wood piles and sawlogs with calculations made thereon; experiments with the ashes saved from the school stove, etc.

On the school's agricultural book-shelf there should be copies of Bulletin No. 155, *Farm Forestry*, and the *Report on the Reforestation of Waste Lands in Southern Ontario*, 1908, by Prof. E. J. Zavitz, and pupils should be encouraged to refer to them. These can be obtained free from the Department of Agriculture, Toronto. Other books on trees might be added to the school library; lists of these will be found in the *Catalogue of Library Books* published by the Department of Education.

**A Local Tree Nursery at the School.**—The growing of trees will be found an interesting phase of school garden work. On a very small piece of ground, all the shade trees required in the neighborhood could readily be grown. The garden would include a local tree nursery. The work shouldn't be limited to growing the evergreens sent out by the Forestry Department. These are sent out three or four years old because they are hard to grow from seed. But the broad-leaved trees are easily grown from seed. There might be rows of walnuts, maples, oaks, hickories, horse chestnuts, butternuts, etc., alongside of the rows of evergreens. In a very few years some of these can be grown large enough to set out along the roads, in bush lots, around buildings, etc. For the happiness and instruction of the future generations, the present generation might well establish clumps of the nut-bearing trees in our school grounds if they are spacious enough, as well as at the homes, or plant rows of such trees along the private lanes and public roads. Why should not the school grounds have some fruit trees, especially the quicker bearing plums, cherries and apples for the children to learn to care for and to enjoy? Arrangements may be made later to connect up the schools that undertake this work. Such schools could exchange tree seeds with one another. Supplies may be sent out from Guelph also. Such seed distribution will have to be carried out in the fall.



**Tree Planting at Schools.**—In planting out these young trees a warning should be given. Look ahead twenty-five years! Do not put the evergreens at the front of the school where they will hide the school and be a nuisance when they are grown larger. Give them plenty of room, and set them out in clumps towards the back of the school grounds where they will be an object of beauty twenty or thirty years hence. It is not desirable to set them in rows except as a windbreak, and even then the inner border should be broken into wave lines by planting other trees.

Most of our schools can be put into two classes if considered from the tree planting point of view. Those that have too few, if any, trees; and those that have too many, these often being crowded, misplaced, mis-shaped and of the wrong kind. One fine tree of the right kind in the right place is more to be desired than a dozen poor, over-trimmed, crowded trees. And one such tree will do much to make the school grounds beautiful and the school attractive to children. So when planting trees about the school, adopt a policy and think of the time when the trees are grown. Shade trees such as our hard maple should be set about thirty-five feet apart at least.



Nursery for young trees, Toronto

The trees for street and park planting are grown here. This kind of work can be done in a school garden.



NOTE.—Teacher might use this page for recording work carried out.  
This could be left in the school for future reference.



The Ontario Agricultural and Experimental Union—  
Schools' Division

ONTARIO AGRICULTURAL COLLEGE, GUELPH.

In Co-operation with

The Department of Education of Ontario

---

Committee—S. B. McCREADY, Director ; H. L. HUTT, School Ground Improvement  
J. W. CROW, Fruit Growing ; A. H. McLENNAN, Vegetable Growing ;  
WM. HUNT, Floriculture ; C. A. ZAVITZ, Agriculture ; E. J. ZAVITZ, Forestry ;  
W. R. GRAHAM, Poultry ; J. A. MacDONALD, School Gardening.

---

ORDER SHEET FOR SCHOOL COLLECTION  
OF TREE SEEDLINGS.

School .....	Teacher .....
(Number and local name.)	
Municipality .....	Post Office .....
County .....	Express Office .....
Inspector .....	Secretary .....

---

To the Director of Elementary Agricultural Education,  
Ontario Agricultural College,  
Guelph.

Date.....

I hereby make application for the Collection of Tree Seedlings supplied to schools from the Provincial Forest Nursery.

I undertake to see that they are properly cared for and used for educational purposes as required.

.....  
Teacher.

N.B.—Fill in information on the other side.

(Over.)



## INFORMATION.

(To be filled in by the Teacher.)

**Plans for the Work.**—Teacher will please state how it is proposed to carry on the work; whether the ground has been prepared; how it is intended to use the trees when they are ready to be planted permanently; what assurance there is that the material will not be neglected and wasted in case the teacher should not remain in the school.

**Tree Planting Conditions and Prospects.**—Please state the present condition of the school grounds as regards trees; also what policy is desirable for the future. Are there any reforestation projects possible in connection with the school?

**Tree Seed Exchange.**—Are you interested in getting into touch with other schools for exchange of tree seeds such as hickories, walnuts, butternuts, chestnuts, oaks, maples? What could you send?

**Information re. Previous Supplies.**—Has your school received a supply of these seedling trees previously?..... How many times? ..... If so, what has become of them?..... Why is another supply requested?.....

Is this school registered with the *Director of Elementary Agriculture* for teaching agriculture and earning special grants? (Circular 13, reg. 5.)  
.....

Are you likely to be teaching in this school after summer holidays?.....

May we expect a report from you regarding your school's experiences with the trees?.....



### 3.—DISTRIBUTION OF VINES, BULBS AND DAHLIAS TO SCHOOLS.

During the past four years in which the Schools' Division of the Experimental Union has been in operation—several hundred schools have received supplies of vines and tulip bulbs under the arrangements made by the Schools' Division with growers and importers. The arrangement is continued this year with some additions.

**Aim of the Work.**—The purpose of this distribution is to encourage pupils and teachers to interest themselves in the beautifying of the school buildings and grounds and to facilitate the carrying out of the work. The results of such work are twofold: in the first place the school work and the pupil's education are helped, and in the second place the status of the school is raised in the community and the interest in and support of education are increased.

It may be found advisable in many cases for schools to purchase their material directly from dealers. There is much to be gained in getting the pupils to send for catalogues, study them and send away for supplies themselves. The saving in trouble and money may be counterbalanced by the loss of a chance to train pupils in business methods.

**Children's Clubs.**—The distribution is not restricted to school-ground improvement. Schools at which children may be organized into clubs, or at which a class or group of pupils may have planned together to carry on similar work at home, are permitted to purchase supplies under this scheme; teachers joining in the practical work with their pupils are permitted also. It is naturally expected that the pupils' experiences will be put to educational uses in the school work.

**Vines from the Woods.**—It is not necessary to purchase cultivated vines for school-ground improvement. Some of our native vines commonly found throughout the province can be made good use of in this connection. Amongst these are Virginia Creeper (Woodbine), Wild Clematis (Virgin's Bower), Climbing Bitter Sweet (Hangman-of-the-Woods) and Wild Grape. They may be set out to cover fences, lattices or arbors. They are not so suitable for walls; the wild Virginia Creeper does not cling to brick walls. The Wild Cucumber is found commonly growing wild also; it is well suited to covering up an unsightly pile of rubbish.

**Materials Sent Out.**—The Schools' Division tries to procure the highest quality of supplies for the distribution at fair rates. It does not seek to supply cheap material. While it does not guarantee the material, it strives to protect schools against failures and loss. The selection made is of such hardy things as should do well under the rather adverse conditions that may prevail at the school.

**Vines.**—All the vines are hardy except the *Boston Ivy*; it should not be bought for northern counties. The *Clematis Paniculata* has masses of small white flowers, not large purple flowers. The *Dutchman's Pipe* has fine large leaves. The *Rambler Roses* are two of the best known varieties.



**Gladiolus.**—The flowers of the Gladiolus make a splendid show. A fine bed of them in front of a school would make a fine sight in August or the beginning of September. The bulbs are planted from April to July and lifted after the fall frosts, to be stored inside for the winter.

**Dahlias.**—Dahlias produce their flowers in September and October. There are three types of flowers, viz., Cactus, Decorative and Show. The tubers are planted in the ground when the season becomes warm. Before hard frosts they are lifted, dried a little and stored inside for the winter.

**Daffodils.**—These bulbs are very suitable for pot culture, providing beautiful bloom for the home in the winter months. The pupils can pot the bulbs at school and take them home to care for. Clumps of them in the school flower border show well in spring. *Von Sion* is perhaps the most popular Daffodil (also called Narcissus); *Poeticus* is the Pheasant's Eye or Poet's Narcissus.

**Tulips.**—The *Early Flowering Tulips* are the commonest and best known tulips; they are commonly planted in formal beds; it is this kind that should be used for pot culture. The *Late Flowering Tulips*—also called *May Flowering* and *Cottage Garden Tulips*—are later in blooming and, as a rule, more variegated in their coloring; they look best in clumps in borders.

**Note.**—Teachers are advised to consult garden books or catalogues for further information about the material offered.



The Ontario Agricultural and Experimental Union—  
Schools' Division

ONTARIO AGRICULTURAL COLLEGE, GUELPH.

In Co-operation with

The Department of Education of Ontario

ORDER SHEET FOR VINES, BULBS AND  
DAHLIAS.

FOR SPRING ORDERING.

School .....	Teacher .....
(Number and local name.)	
Municipality .....	P. O. Address .....
County .....	Express Office .....
Inspector .....	Secretary .....

To the Director of Elementary Agricultural Education,  
Ontario Agricultural College,  
Guelph.

Dear Sir:—

Date.....

Enclosed find \$..... for which please send me the planting material marked below:

**Vines.**—Plants are sent out with express or postage charges prepaid. Orders should be in by May 1st if possible. No order received for less than 40c. For \$1.00 a collection consisting of a vine of each kind will be sent and any vines additional to this collection will be furnished at 18 cents each. Mark number of each kind wanted plainly.

Boston Ivy (20c.)	Dutchman's Pipe (25c.)	Climbing Roses Crimson Rambler (20c.)
Virginia Creeper (15c.)	Clematis paniculata (20c.)	Dorothy Perkins (20c.)

**Gladiolus.**—Bulbs are sent out with express or postage charges prepaid. Orders should be in by May 1st, if possible. No order received for less than 50 cents, additional dozens at 40 cents. Please state if you have any color preference.

Collection of 12 bulbs of named varieties of Gladiolus, all of different colors, 50 cents.

.....Numbered Ordered .....Amount.

**Dahlias.**—Tubers are sent out with express or postage charges prepaid. Orders should be in by May 1st, if possible. No order received for less than 50 cents, and additional half dozens at 40 cents. Please state if you have any color variety preference.

Collection of 6 Dahlia tubers—2 each of Cactus, Decorative and Show varieties, in different colors—50 cents.

.....Numbered Ordered .....Amount.

N.B.—Fill in information on the other side.

(Over.)



## INFORMATION.

(To be filled in by Teacher.)

---

**Plans for the Work.**—Teacher will please state how it is proposed to carry on the work; whether the material will be used on school grounds or at pupil's homes; whether it is being given to pupils as prizes or purchased by them; whether a club or society has been organized amongst the pupils.

**Work in Previous Years.**—We will thank you for a word regarding your methods and results in any previous undertakings of this kind.

Is this school registered with the Director of Elementary Agricultural Education for teaching agriculture and earning special grants? (Circular 13, regulation 5) ..... Are you likely to be teaching in this school after summer holidays? .....



# The Ontario Agricultural and Experimental Union Schools Division

ONTARIO AGRICULTURAL COLLEGE, GUELPH

In Co-operation with

The Department of Education of Ontario

## ORDER SHEET FOR BULBS.

### FOR FALL PLANTING.

School ..... Teacher .....  
(Number and local name.)

Municipality ..... P. O. Address .....

County ..... Express Office .....

Inspector ..... Secretary .....

To the Director of Elementary Agricultural Education,  
Ontario Agricultural College,  
Guelph.

Dear Sir:—

Date.....

Enclosed find \$..... for which please send me the bulbs marked below:

### FOR FALL ORDERING.

**Daffodils.** —Bulbs are sent out with express or postage charges prepaid, commencing about September 10th. Orders should be sent by October 31st at latest. No order received for less than 50c. Additional dozens at 20 cents. Please state if you would like any of the Poeticus variety substituted for the Von Sion.

Collection of 25 bulbs of Von Sion Daffodil, 50 cents.

.....Numbered Ordered .....Amount.

**Tulips.** —Bulbs sent out with express or postage charges prepaid, commencing about September 10th. No order received for less than 50 cents. The price is 50 cents for the first 30 bulbs and 18 cents a dozen for additional quantities.

Early Flowering Single Tulips			Late Flowering Tulips.		
L'Immaculee (White)		Cottage Maid (Pink)		Darwin Tulips.	
Jacht Van Delft (White)		Rosa Mundi (Pink)		Parrot Tulips.	
Crimson King (Red)		Duches de Parma (Red and Yellow)		Bizarre Tulips.	
Artus (Red)		Kaiser's Kroom (Crimson and Yellow)		Bybloems Tulips.	
Canary Bird (Yellow)		Brutus (Crimson, Orange and Gold)			
Chrysolora (Yellow)		Joost Von Vondel (Rose and White)			

It should be remembered that the Early Flowering Tulips only are suitable for pot culture; the Late Flowering Tulips are used only for garden culture.

N.B.—Fill information on the other side.

(Over.)



## INFORMATION.

( To be filled in by Teacher.)

**Plans for the Work.** —Teacher will please state how it is proposed to carry on the work; whether the material will be used on school grounds or at pupils' homes; whether it is being given to pupils as prizes or purchased by them; whether a club or society has been organized amongst the pupils.

**Work in Previous Years.** —We will thank you for a word regarding your methods and results in any previous undertakings of this kind.

---

Is this school registered with the Director of Elementary Agricultural Education for teaching agriculture and earning special grants? (Circular 13, reg. 5) ..... Are you likely to be teaching in this school next spring? .....



## 4.—PLANTING MATERIAL FOR SCHOOL PROGRESS CLUBS.

In many places good results have been secured both for the education of country children and the promotion of agriculture through children's clubs. The Schools' Division of the Experimental Union aims to help on this desirable work in connection with Ontario rural schools by offering the best possible material that can be procured for the children to work with. Through this means it may be possible in some cases to help in improving the quality of the crops in a neighborhood while making a very good practical introduction of the teaching of agriculture in the school.

**The Method.**—No formal method of handling the work is laid down here. Each teacher will develop his or her own plans. It should be kept in mind, however, that the most important part of the work is to make the pupil's practical experiences in the useful work that he has undertaken effective in his education and for his outlook on farm work and country life. These experiences should be used largely in the arithmetic, the nature study, the oral and written composition work of the school. The club may hold its sessions on Friday afternoons for reports, discussions, debates and the reading of essays under its own president, secretary and committees. This will serve to develop qualities of leadership. The agricultural book shelf should be furnished with books and government bulletins for reference and the members of the club should be encouraged to use them. Ex-pupils and parents may be brought into the work with advantage to the school. The work may be carried out in connection with the school garden; it should supplement the school garden rather than supersede it.

It may be thought well to select a special name for the club and to choose a distinctive motto and badge. A School Fair at the school or a school exhibit at the local Agricultural Society's Fall Fair will make a desirable ending to the season's work. Co-operation with neighboring schools may enhance the value of the work. In this connection valuable help may be given by the County Agricultural Representative. From him also, supplies of seed more suitable to local conditions than those offered here may be secured.

---

## MATERIAL FURNISHED TO SCHOOL PROGRESS CLUBS.

**1. Alfalfa.**—This is becoming more and more recognized as one of the very best crops to grow on the farm. Recent investigations indicate that our home-grown Ontario Variegated Alfalfa is the best to sow. Extra choice seed of this variety, sufficient to sow one square rod, will be sent to each pupil in an "Alfalfa Club." With success, this plot may not only make practical the lesson on alfalfa contained in Chart No. 1, sent to all Ontario schools in the spring of 1912, but provide a breeding plot for raising more choice seed.



**2. O.A.C. No. 21 Barley.**—This barley has originated (1904) from a single selected plant of Mandscheuri barley. It has taken the leading place amongst the barleys grown in the province. Choice seed, to sow one square rod, will be sent to each pupil in the "Barley Club."

**3. Siberian Oats.**—This variety has proven itself by tests on the Experimental Farm at Guelph, and co-operative tests throughout the province to be one of the very best white oats that can be grown. Choice seed, to sow one square rod, will be sent to each pupil in the "Oat Club."

**4. Prize-winning Oats.**—Through the courtesy of Mr. J. Lockie Wilson, Superintendent of Ontario Field Crop Competitions carried out under the Provincial Department of Agriculture, a bagful of the oats which took first prize in one of the Standing Grain Competitions and afterwards first prize at the seed exhibit at the Ottawa Winter Fair, is available for distribution amongst school "Oat Clubs." A few packages may be distributed amongst schools getting Siberian Oats (No. 3). Seed to sow plots of one square rod will be sent out. The variety is called *Yellow Russian*.

**5. Early Eureka Potatoes.**—An early potato that has been proven to be one of the most desirable to raise in Ontario. If it should prove acceptable it may lead to its establishment as the standard early potato in the locality. There is need for more uniformity of variety amongst potato growers. Seed to sow one square rod will be sent to each pupil in the "Potato Club."

**6. Empire State Potatoes.**—There are by far too many varieties of potatoes grown in Ontario. This late potato has proven itself one of the very best standard late potatoes. Seed to sow one square rod will be sent for each pupil in the "Potato Club."

**7. Flint Corn.**—Flint Corn is the hard, shiny corn used for feeding (used to some extent also for silage), and *Salzer's North Dakota* (*Longfellow* for more northern countries), are generally recommended for growing in Ontario. Seed should mature in most places in a favorable season. Seed for one square rod (and an additional supply if requested) will be sent to each pupil in a "Corn Club" desiring to demonstrate this variety of corn in the neighborhood.

**8. Dent Corn.**—This is the corn usually sown for silage. *Wisconsin No. 7* is a very highly recommended variety for growing in Ontario. In the south-western counties only the seed may be expected to mature. Same quantities as above (with additional supply if requested) will be sent to each pupil.

**9. Sweet Corn.**—*Golden Bantam* is considered by many the choicest sweet corn for home growing. Seed for one square rod will be sent to each pupil.

**10. Pop Corn.**—A choice white Pop Corn will be supplied to any "Corn Club" desiring to grow square rod plots of this crop.



**11. Beets for Girls' Canning Club.**—Seed of a selected canning beet will be sent to girls who desire to undertake this line of work. A circular giving instructions for the work will be sent also. The growing of tomatoes for Girls' Canning Clubs is also recommended, but for this it is advisable in most cases to purchase ready grown tomato plants.

**12. Eggs from O.A.C. Bred-to-lay Barred Rocks.**—Through the courtesy of Prof. Graham, of the Poultry Department, 100 dozens of eggs are made available for twenty or more schools in which Poultry Clubs are organized. The distribution will necessarily have to be restricted. Not more than five dozen eggs will be sent to any school. They will be sent only into counties where the District Representatives are not distributing similar eggs amongst the schools. The eggs will not be available until about June 1st, so that extra care will be required in rearing the chicks to have them mature before winter. They will be sent to representative schools in widely separated parts of the province. Schools that are known to be progressive under teachers who have been in charge for a number of years and are remaining throughout 1913 will be given the preference. Pupils receiving the eggs will be required to follow instructions carefully and to promise to donate settings of eggs from their fowl the following spring to another neighboring school.

It is hoped that the narrow limitations of this offer will not prevent teachers and pupils in many other schools than those selected, organizing a club, purchasing eggs of some desirable pure bred stock and thus raise the standard of the poultry of the neighborhood.

---

## INSTRUCTIONS RE ORDERING.

1. Read carefully the suggestions given in the preceding pages before ordering.

2. Do not attempt too much; "slow but sure" is a good motto here; leave something to be done next year and the succeeding years.

3. Secure the advice of local farmers in choosing a line of work.

4. Restrict the membership so far as the practical work is concerned to the older pupils and to those who will make a success of it; it is intended chiefly for 4th and 5th class pupils, though some of the 3rd class may be permitted to join.

5. Ex-pupils may be admitted.

6. It is very desirable to restrict the work to one thing; all the boys should do the same work, but the girls might be allowed to grow vegetables for canning.



7. Since the product will likely be of high quality, it should be kept to a large extent for planting next year on larger plots.

8. Wherever possible, pupils should grow plots of the same size, planted with a sample of seed such as his father sows in his fields; much value lies in comparisons and without such, conclusions may be unsafe.

9. Teachers should indicate second and third choice; the Schools' Division does not guarantee to furnish material for each first choice.

10. If a school cannot be supplied with the material or the quantity required, notice will be sent in time to enable the club to make other arrangements for securing supplies for itself.

11. Do not be disappointed if your school is not chosen for the egg distribution.



Prize Pullet at Cameron, Victoria Co.  
School Fair, November, 1912.



The Ontario Agricultural and Experimental Union—  
Schools' Division

ONTARIO AGRICULTURAL COLLEGE, GUELPH

In Co-operation with

The Department of Education of Ontario

---

Committee—S. B. McCREADY, Director ; H. L. HUTT, School Ground Improvement  
J. W. CROW, Fruit Growing ; A. H. McLENNAN, Vegetable Growing ;  
WM. HUNT, Floriculture ; C. A. ZAVITZ, Agriculture ; E. J. ZAVITZ, Forestry  
W. R. GRAHAM, Poultry ; J. A. MacDONALD, School Gardening.

---

ORDER SHEET FOR MATERIAL FOR THE USE  
OF SCHOOL PROGRESS CLUBS.

Director of Elementary Agricultural Education,  
Ontario Agricultural College,  
Guelph.

Dear Sir:—

Please send me the material marked below for the use of the pupils  
who have joined our school's Progress Club as shown by the enrollment on  
the other side:

1. Ontario Variegated Alfalfa.	7. Flint Corn, Salzer's North Da- kota (Longfellow for northern counties.)
2. O. A. C. No. 21 Barley.	8. Dent Corn, Wisconsin No. 7.
3. Siberian Oats.	9. Sweet Corn, Golden Bantam.
4. Prize Winning Oats.	10. Pop Corn, White.
5. Early Eureka Potatoes.	11. Beets for Girls' Canning Clubs.
6. Empire State Potatoes.	12. Eggs from O. A. C. Bred-to-Lay Barred Rocks.

N.B—Fill in the information on the other side.

(Over.)



# APPLICATION AND INFORMATION.

School .....	Teacher .....
(Number and local name)	
Municipality .....	P. O. Address .....
County .....	Express Office .....
Inspector .....	Secretary .....

To the Director of Elementary Agricultural Education,  
 Ontario Agricultural College,  
 Guelph.

Date.....

We, the undersigned pupils of the above mentioned school beg leave to notify you that we have organized a School Progress Club. We desire to make application also for the material marked on the other side, undertaking to carry out the work to the best of our ability in accordance with the plans and directions that are to be given.

PUPIL'S NAME.	AGE.	CLASS.	PUPIL'S NAME.	AGE.	CLASS.

**Plans for the Work.**—Teacher will please state how it is proposed to carry on the work; plans for co-ordinating the work with school work; local support from trustees, Women’s Institute, Agricultural Society; whether a School Fair is planned for.

What is your second choice?..... What is your third choice?.....  
 ..... What special name have your pupils chosen for their Progress Club?..... Is this school registered for teaching agriculture and earning special grants (Circular 13, regulation 5)? ..... Have you or are you arranging for a local Township Rural School Teachers’ Club or Association?.....